

REMARKS

In reply to the Office Action of June 4, 2008, Applicants submit the following remarks.

In the Office Action, claims 1, 3, 6-8, and 32-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Gianturco, U.S. Patent No. 4,800,882 ("Gianturco"), in view of Mayer, U.S. Patent No. 5,630,840 ("Mayer"). This rejection is in error because a person having ordinary skill in the art at the time of invention would not find it obvious to make a stent having a "body consisting essentially of an alloy comprising tungsten and rhenium," as claimed based on the disclosures of Gianturco and/or Mayer.

Gianturco discloses a wire stent that "is made of a malleable material, preferably from the group comprising annealed stainless steel, tungsten and platinum." Gianturco, col. 3, lines 63-65. Gianturco does not disclose or suggest the use of a wire that "consists essentially of an alloy comprising tungsten and rhenium." Gianturco goes on to discuss the properties of the malleable material in the following passage:

This malleable material is sufficiently deformable to allow the loops 15 and 16 to diverge due to radially outward pressure applied by inflation of the membrane that comprises the standard balloon catheter. Because the stent material is plastic, rather than elastic, the stent retains the enlarged diameter after the balloon 23 is deflated and the catheter 22 removed. However, the material has sufficient strength and stiffness to avoid the stent being displaced on the balloon during insertion and to avoid the loops 15 and 16 being forced into an overlying relation. Further, the stent has sufficient strength and stiffness to allow it to maintain its position in the passageway and to resist being dislodged after the catheter 22 has been removed and the balloon is no longer stabilizing the stent.

Gianturco, col. 3, line 65 – col. 4 line 11.

The Office Action asserts that it would have been obvious to replace the tungsten material disclosed by Gianturco with the tungsten-rhenium alloy disclosed by Mayer. This rejection, however, ignores the structural difference between Gianturco and Mayer. Gianturco discloses a wire, while Mayer discloses a composite filament having a core and a casing. Nothing in Mayer would suggest to a person having ordinary skill in the art that he should substitute Mayer's core, without the casing, for Gianturco's wire. The Examiner is taking Mayer out of context, picking and choosing parts of Mayer's structure, while ignoring the portions of

the Mayer disclosure that undermine the Examiner conclusory assertion of obviousness. Accordingly, the rejection is in error and should be withdrawn.

Mayer discloses a composite filament such as that shown in Figs. 4, 11, 13, and 14 (reproduced below). Each filament includes at least a core (e.g., 24, 76, 82, or 90) and a casing (e.g., 26, 78, 84, or 92). The combination of the core and the casing provides a filament structure that provides the stent with suitable flexibility and radiopacity. Mayer does not disclose or even suggest the use of the core without the presence of the cladding. Mayer states that the core “conforms to the shape of the case” and that “the mechanical behavior of the composite filament 18a in terms of elastic deformation in response to external stresses is, essentially, the behavior of the case 26.” Mayer, col. 6, lines 14-21. Accordingly, one having ordinary skill in the art would not find it obvious to substitute the core material of Mayer alone for Gianturco’s wire.

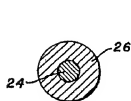


FIG. 4

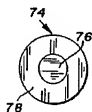


FIG. 11

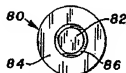


FIG. 13



FIG. 14

Mayer discloses one embodiment of a core including “a tungsten-based alloy including rhenium at 5-40 weight percent.” Mayer, col. 11, lines 55-58. Mayer does not suggest that this alloy would have the properties suitable for Gianturco’s wire. In particular, there is no indication that the tungsten-based alloy disclosed by Mayer would be “plastic, rather than elastic,” yet have “sufficient strength and stiffness to avoid the stent being displaced on the balloon during insertion and to avoid the loops 15 and 16 being forced into an overlying relation” and also have “sufficient strength and stiffness to allow it to maintain its position in the passageway and to resist being dislodged after the catheter 22 has been removed and the balloon is no longer stabilizing the stent.” While Mayer only indicates the disclosed alloy could be used in composite filament in combination with a cladding, it was the Applicants that discovered that the claimed

alloy has properties suitable for use as a stent body. Because there is no indication in either Gianturco or Mayer that the claimed alloy alone would have the properties suitable for a stent body, the rejection is improper and should be withdrawn.

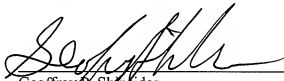
The rejection of claims 26-28 and 36-38 over Gianturco in view of Mayer and Campbell, U.S. Patent No. 5,632,840 ("Campbell") is also improper for the reasons given above. Campbell does not disclose or suggest that the core alloy disclosed by Mayer has the properties suitable for Gianturco's wire. Accordingly, this rejection is also improper and should also be withdrawn.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: _____

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